A Westerbork blind HI imaging survey of the Perseus-Pisces filament in the Zone of Avoidance

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Propositions

accompanying the dissertation

A Westerbork blind HI imaging survey of the Perseus-Pisces filament in the Zone of Avoidance

1. The previously unexplored galaxy overdensity deep in the ZoA forms part of the Perseus-Pisces Supercluster making it one of the largest known structures (>>100 Mpc) in the local Universe. (Chapter 2)

2. A better understanding of the effects of obscuration on the properties of galaxies in the ZoA (at all wavelengths), requires a high-resolution and well-calibrated map of the Galactic extinction. (Chapter 2)

3. In the absence of redshift data, exploring the red sequence signature on the colour-magnitude diagram of cluster galaxies can be useful in identifying its members. (Chapter 3)

4. The 3C 129 cluster is a rich nearby cluster that may still be growing through the accretion of galaxies that are infalling along the Perseus-Pisces Supercluster filament. (Chapter 3)

5. Galaxy-galaxy interactions and orbital histories of galaxies play a significant role in removing the HI gas. (Chapter 4)

6. Imperfect data based on real observations are essential to fine-tune the effectiveness of automated HI source-finding and characterisation techniques.

7. We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline. (Karl Popper)

8. Music has no effect on research work, but both are born of the same source and complement each other through the satisfaction they bestow. (Albert Einstein)

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